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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,344	03/16/2001	Michael Hawkins	JYG147USA	8232

270 7590 10/08/2003

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EXAMINER
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ANGEBRANNDT, MARTIN J

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/787,344

Applicant(s)

HAWKINS ET AL.

Examiner

Martin J Angebranndt

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1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,11,12 and 14-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,11,12 and 14-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. The response provided by the applicant has been read and given careful consideration. Response to the arguments of the applicant are presented after the first rejection to which they are directed. Rejections of the previous office action, not repeated below are withdrawn based upon the amendments and arguments of the applicant.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 16,17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 1 and 17 the applicant should replace “the film” or “said film” with --the plastics film- - or --said plastics film- - to make it clear that the reference is back to the “plastics film” and not the “light sensitive **film** composite”.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3,5,11,12,14,15 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hohenacker '169 and JP 09-211779, in view of Shibahara et al. '463.

Hohenacker '169 teaches the provision of a white **and**/or reflective layer backing the photochromic layer to increase sensitivity by reflecting a portion of the light back towards the photochromic recording material. (4/20-28). The formation of a mask/diaphragm on the photochromic layer is disclosed to reduce the amount of photosensitive material needed and to

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prevent inadvertent exposure ((light only reaches areas where picture info is desired to be stored) (2/4-64). The use of 3 to 500 regularly spaced circular holes is disclosed. (3/1-11) The diaphragm may be 5 mm thick. (3/20-32)

JP 09-211779 in the example teaches a white PET (polyethylene terephthalate) coated with a 10 microns thickness of a stilbene ( **(Ethenediyl)**bis[benzene] --Merck index) in a polystyrene binder [0043-0044]. The use of various photochromic materials, including spiropyrans, fulgides and diaryl ethenes is disclosed. [0029-0030]. The use of various binders, including polystyrene, PVC, polycarbonate, PTFE, polyacrylonitrile, etc is disclosed. [0031].

The examiner holds the position that PET is not white alone, but must contain a white pigment to obtain this appearance. With respect to claim 19, any solvent coating process is held to be embraced by this claim.

Shibahara et al. '463 teach that white PET is made by incorporating titanium dioxide (titania) in the PET resin. (21/55-56, comparison example 1)

It would have been obvious to modify the invention of Hohenacker '169 by adding a white plastic backing material to allow viewing of the resulting image against that background based upon the direction to use a "bright white and/or metallic reflective layer" (4/20-28) such as that taught by the combination of JP 09-211779 and Shibahara et al. '463 based upon the direction within Hohenacker '169 with a reasonable expectation of forming a useful article with the same functionality and increasing the reflected light back to the photochromic layer and hence the sensitivity. Alternatively, it would have been obvious to modify the invention of JP 09-211779 and Shibahara et al. '463 described above by adding a backing metal reflective layer taught by Hohenacker '169 with a reasonable expectation of increasing the reflected light back to

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the photochromic layer and hence the sensitivity. Further it would have been add the masking element of Hohenacker '169 to reduce the amount of photochromic material needed and the prevent exposure in undesired areas as taught by Hohenacker '169.

The applicant argues that the use of heating during the recording of the image by JP 09-211779 is not required in the claimed invention. This is correct, but the current claims do not exclude this embodiment either. The use of the heating during recording and cooling increases the stability of the image which is desirable in optical recording. As both Hohenacker '169 and JP 09-211779 optically recording information in photochromic recording layers, the references are analogous and combinable. The white film of JP 09-211779 is inherently diffusely reflective and use a filler to achieve this as evidenced by Shibahara et al. '463. The examiner notes that the instant specification recites polystyrene as does claim s 5 and 18 and this would embrace any molecular weight of polystyrene. Higher molecular weights have higher glass transition temperatures ( $T_g$ ). The examiner would like to point out that titania is merely another name for titanium dioxide and therefore this limitation is taught in the combination of references. While the applicant argues the disclosed use with television screens or other displays, the coverage accorded articles claims is well beyond that. The examiner notes that the formation of a stabilized image would seem to be desirable to and congruent with Hohenacker '169. The disclosure of the effects of the reflective metallic layer is clearly recognized in the imaging arts as evidenced by Hohenacker '169. The rejection stands.

6. Claims 1-3,5,11,12 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hohenacker '169 and JP 09-211779, in view of Shibahara et al. '463, further in view of Sambrook-Smith, et al. WO 91/12139.

Sambrook-Smith, et al. WO 91/12139 teaches the tinting of the photochromic layer with pigments or dyes which do not degrade in UV or visible light. (10/20-24). The use of exposure through a photomask is also disclosed. (11/34-12/13 and 21/1-4)

In addition to the basis provided above, the examiner holds that it would have been obvious to tint the photochromic composition of Hohenacker '169 and JP 09-211779 combined with Shibahara et al. '463 as taught by Sambrook-Smith, et al. WO 91/12139 as this is known in the art and may increase contrast with appropriate choice of tinting.

7 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

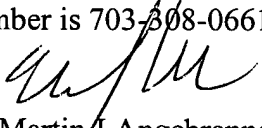
112 rejections

8 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J Angebrannt whose telephone number is 703-308-4397. The examiner can normally be reached on Mondays-Thursday and alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703-308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Martin J Angebranndt  
Primary Examiner  
Art Unit 1756

October 3, 2003